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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/641,145	08/15/2003	Seizo Katsui	030987	8560

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EXAMINER

RINEHART, KENNETH

ART UNIT	PAPER NUMBER
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3749

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/641,145

Applicant(s)

KATSUI, SEIZO

Examiner

Kenneth B Rinehart

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-5 is/are rejected.
- 7) ☒ Claim(s) 4, 6 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/15/03</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed 8/15/03 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over 2001-21129 in view of 10-68515 and 2001-304519. including an incinerator body having a funnel-shaped lower side wall, a flame zone, a refuse layer, a glow layer and an ash layer being formed in this order inside the incinerator body from top to bottom at the time of combustion (11, 51, 52, 53, fig. 2), a plurality of primary air nozzles supplying primary air for combustion that are introduced into the incinerator body (61, 62, fig. 2), a casing that is provided for the ash layer below the incinerator body (fig. 1) and that houses retractable refuse supporting means (14, fig. 2) and a closable bottom ash discharge plate disposed below the refuse supporting means with a clearance interposed between the refuse supporting means and the bottom ash discharge plate (16, fig. 2); and an air duct supplying air for final burning that is incorporated into the casing (57,

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fig. 2), wherein, at the time of discharging bottom ash, the refuse supporting means is projected into the ash layer so as to support the load of refuse and bottom ash deposited in the incinerator body, then the closed bottom ash discharge plate is opened so as to discharge the bottom ash retained between the refuse supporting means and the bottom ash discharge plate, followed by closing the bottom ash discharge plate, and then the refuse supporting means are retracted (fig. 2, the apparatus is capable of performing these actions.), and that house an inclined reversible grate that can be reversed from a horizontal position in which bottom ash is deposited and retained to a vertical position in which bottom ash is discharged (16, fig. 2), wherein refuse charging equipment for charging refuse to the incinerator body is provided and the refuse charging equipment is provided with a space for drying and preheating refuse (13, auger, airlock, figs. 1 and 2, The refuse will inherently be preheated and dried due to its close proximity to the heat generated during combustion). 2001-21129 discloses applicant's invention substantially as claimed with the exception of an exhaust gas mixing device for spinning combustion gas that is made of a refractory that is provided above the incinerator body and that has a plurality of secondary air blow holes for supplying secondary air for re-combustion formed therein, at least a part of the air blow holes being opened toward the flame zone in an upper portion of the incinerator body; a re-combustion chamber placed on the exhaust gas mixing device, a cooling casing covering the exterior of the funnel-shaped side wall. 10-68515 teaches an exhaust gas mixing device for spinning combustion gas that is made of a refractory that is provided above the incinerator body (2, fig. 1) and that has a plurality of secondary air blow holes for supplying secondary air for re-combustion formed therein (fig. 1), at least a part of the air blow holes being opened toward the flame zone in an upper portion of the incinerator body (21, fig. 1); a re-

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combustion chamber placed on the exhaust gas mixing device (3, fig. 1) for the purpose of preventing the generation of dioxins. It would have been obvious to one of ordinary skill in the art to modify 2001-21129 by including an exhaust gas mixing device for spinning combustion gas that is made of a refractory that is provided above the incinerator body and that has a plurality of secondary air blow holes for supplying secondary air for re-combustion formed therein, at least a part of the air blow holes being opened toward the flame zone in an upper portion of the incinerator body; a re-combustion chamber placed on the exhaust gas mixing device, a cooling casing covering the exterior of the funnel-shaped side wall as taught by 10-68515 for the purpose of preventing the generation of dioxins so that environmental regulations are met. 2001-21129 in view of 10-68515 discloses applicant's invention substantially as claimed with the exception of a cooling casing covering the exterior of the funnel-shaped side wall. 2001-304519 teaches a cooling casing covering the exterior of the funnel-shaped side wall (34, fig. 1) for the purpose of cooling the incinerator. It would have been obvious to one of ordinary skill in the art to modify 2001-21129 by including a cooling casing covering the exterior of the funnel-shaped side wall as taught by 2001-304519 for the purpose of cooling the incinerator so that degradation of the casing is reduced over time and maintenance costs are reduced.

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over 2001-21129 in view of 10-68515 and 2001-304519 as applied to claim 1 or 3 above, and further in view of 2000220815. 2001-21129 discloses wherein refuse charging equipment for charging refuse to the incinerator body is provided and the refuse charging equipment is provided with a space for drying and preheating refuse (13, auger, airlock, figs. 1 and 2, The refuse will

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inherently be preheated and dried due to its close proximity to the heat generated during combustion). 2001-21129 in view of 10-68515 and 2001-304519 discloses applicant's invention substantially as claimed with the exception of sludge drying means are provided in the incinerator body or in an upper portion of the re-combustion chamber. 2000220815 teaches sludge drying means are provided in the incinerator body or in an upper portion of the re-combustion chamber (13, fig. 1) for the purpose of drying sludge. It would have been obvious to one of ordinary skill in the art to modify 2001-21129 by including sludge drying means are provided in the incinerator body or in an upper portion of the re-combustion chamber as taught by 2000220815 for the purpose of drying sludge so that the process will operate more efficiently as dried sludge burns more readily than wet sludge.

Allowable Subject Matter

Claims 2, 6, and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to incinerators in general: Katsui (5205695), Katsui (5127344).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B Rinehart whose telephone number is 703-308-1722. The examiner can normally be reached on 7:30 -4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on 703-308-1935. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KBR


KENNETH RINEHART
PRIMARY EXAMINER